



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW  
ATLANTA, GEORGIA 30303-8909

MEMORANDUM

SUBJECT: Five-Year Review Report  
Tri-City Industrial Disposal Superfund Site  
Bullitt County, Kentucky

FROM: Robert Jourdan, Chief  
North Site Management Branch

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TO: Richard D. Green, Director  
Waste Management Division

The subject report has been prepared in accordance with the May 23, 1991 Office of Solid Waste and Emergency Response Directive 9355.7-02. The directive calls for a policy review of a site every five years after the start of a Remedial Action to evaluate the remedy where no hazardous substances will remain above levels that preclude unlimited use and unrestricted exposure upon remedy completion, but the Remedial Action will require five or more years.

Remedial Action was initiated at the Tri-City Site by the Potentially Responsible Parties (PRPs) in June 1993. A number of the remedial activities required by the Record of Decision for the site have been accomplished, including restriction on groundwater usage, confirmatory sampling, and ecological monitoring. The remaining activities, primarily remediation of two springs by pump and treat, and long-term monitoring, are in progress. EPA provides oversight on the remedial action. Review of monthly activity reports by the PRPs and a recent site inspection visit by the EPA Remedial Project Manager indicate that the remedial approved for the site is being implemented properly.

The attached report summarizes EPA's activities at the site, documents current conditions, and states why the site is believed to be protective of human health and the environment. The next five-year review should be completed by March 31, 2003.

Approved: \_\_\_\_\_

Richard D. Green, Director  
Waste Management Division  
EPA, Region 4

Date: \_\_\_\_\_

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**TRI-CITY INDUSTRIAL DISPOSAL  
BROOKS, BULLITT COUNTY, KENTUCKY  
FIVE YEAR REVIEW**

**I. BACKGROUND**

**A. Introduction**

This five year review for the Tri-City Industrial Disposal Superfund Site is being performed in accordance with the requirements of OSWER Directive 9355.7-02 (Structure and Components of Five-Year Reviews, May 23, 1991). The directive states that EPA will conduct five-year reviews as a matter of policy at sites where no hazardous substance will remain above levels that allow for unlimited use and unrestricted exposure after completion of the Remedial Action, but the clean-up levels specified in the Record of Decision (ROD) will require five or more years to be attained.

**B. Site Location**

The Tri-City Industrial Disposal Superfund Site is located in the community of Brooks in North-central Bullitt County, Kentucky, approximately 15 miles south of Louisville. The site consists of approximately 349 acres and it is located on the south side of State Highway 1526, approximately four miles west of U.S. Interstate 65. The geographical coordinates for the site are 38°2' 50.9" north latitude and 85°46' 06.1 " west longitude. The location of the site is shown on Figure 1.

**C. Site History**

The following is a brief history of the Tri-City Industrial Disposal site. Details of the historical activities at the site can be found in the ROD for Operable Unit #1 dated August 1991, the ROD for Operable Unit #2 dated March 1996, and in various Monthly Reports.

**1. Operational History**

The site was an industrial waste landfill operated by Tri-City Industrial Services, Inc. from 1964 to late 1967. The waste disposed of at the site included scrap lumber, fiberglass insulation, drummed solvents/paint thinners and bulk liquids that were poured onto the ground. There were many complaints by local citizens concerning odors, fires, explosions, deposition of ash on adjoining properties, eye irritation, and breathing difficulties. These complaints lead to a lawsuit against Tri-City Industrial Services, Inc., and the arrest of it's president, Mr. Harry Kletter for creating a public nuisance. Mr. Kletter was released after negotiating that the charges be dropped if the company agreed to stop disposing of and burning waste at the site. Coincidentally, a fire broke out at the site which burned for approximately two years about the same time as the arrest.

**2. Regulatory Action**

EPA became involved with the site in September 1985, at the request of the Kentucky Natural Resources and Environmental Protection Cabinet (KNREPC). The KNREPC conducted a Preliminary Assessment of the property in September 1985, and conducted a Site Investigation in

April 1987. The Site Investigation revealed that there were hazardous substances in the soil and that tetrachloroethene (PCE) was present at a concentration which exceeded the health based level in an on-site spring. The Klapper family was using the spring as a source of domestic water at that time.

In 1988, EPA conducted field sampling at the site and a survey of potable water sources within a one-half mile radius of the site. Results of these activities confirmed presence of PCE in the Klapper Spring and also showed elevated levels of PCE and trichloroethene (TCE) in another spring used by the Cox family. Consequently, EPA immediately initiated an alternate supply of potable water to the Klapper and Cox families. EPA conducted an additional study to assess the site's potential impact on area residents from groundwater, dust, and direct contact in June 1988. The study led to the placement of the site on the National Priorities List (NPL) on March 31, 1989, with a Hazard Ranking Score of 33.82.

### **3. Emergency Removal Action**

EPA conducted an Emergency Removal Action (ERA) in August and September 1988, from an area south of the Cox, Sr. residence. The ERA was initiated when the Cox family reported that a "black ooze" was emanating from their side yard. EPA contractors investigated the "black ooze" and found elevated levels of xylene, toluene ethylbenzene, and lead. EPA contractors then conducted geophysical surveys and field analytical screening in August 1988, and found that waste disposal was concentrated at the southern half of the site. The ERA was conducted in August and September 1988, at the south side of the Cox, Sr. residence. The ERA involved excavating and removing approximately 165 drums, many crushed and empty drums, metal containers of various sizes, auto parts, 400 gallons of free liquids, and over 800 cubic yards of suspected contaminated soil. Several test trenches were also excavated in areas of geophysical anomalies which revealed empty drums and drums containing solids along with fiberglass insulation, wires, and ashes.

### **4. Remedial Investigation/Feasibility Study**

EPA began a Remedial Investigation (RI) in July 1989 to characterize the site and to determine the nature and extent of contamination. The RI activities included:

- topographic mapping,
- geological assessment,
- surface water and sediment sampling,
- spring sampling,
- surface and subsurface soil sampling,
- ecological studies,
- geophysical evaluation,
- groundwater studies,
- aquifer tests, and
- air monitoring.

The RI was followed by the Feasibility Study (FS) which evaluated remedial alternatives for the site. Reports of the RI and the FS were published in May 1991.

## **5. Record of Decision**

Based on the results of the RI and FS, the site was divided into two operable units (OUs). OU #1 called for immediate remediation of contaminated groundwater, and confirmatory sampling to identify any other unacceptable levels of contamination associated with the site. OU #2 was proposed to address additional measures necessary to mitigate any threat to human health or the environment identified during the confirmatory sampling in OU #1.

The Record of Decision (ROD) for OU #1 was issued in August 1991. The ROD required the following actions to be taken:

- treatment of contaminated groundwater,
- continued provision of drinkable water to affected residents,
- temporary restriction of groundwater usage,
- confirmatory sampling of site soils, sediment, and air to ensure that all possible areas of contamination are investigated, and
- long-term monitoring of groundwater, sediment, and ecology to identify additional site-related impacts.

## **6. REMEDIAL DESIGN/REMEDIAL ACTION (RD/RA)**

In March 1992, the Potentially Responsible Parties (PRPs) contracted with Rust Environmental and Infrastructure to conduct the RD and RA to satisfy the ROD requirements. Rust began the RD/RA field activities by initiating long-term monitoring, confirmatory sampling, and performance standards sampling in November 1992. During these activities, it was determined that the Cox Spring and one other spring (Unnamed Spring #1) required an immediate pump and treat remediation and that the Klapper Spring would continue to be monitored. Results of the sampling events were used as basis for the RD and the Remedial Action Work Plan which were finalized in 1993. The work plan detailed the ways and means of meeting the ROD requirements which have been accomplished as follows.

### **A. Treatment of Contaminated Water**

Construction of the pump and treat facilities was completed in June 1994, including two separate systems of flowlines, holding tanks, pumps and granular activated carbon adsorption beds. The setup has allowed the affected springs (Cox and Unnamed Spring #1) to be remediated concurrently. Contaminated water from each spring is pumped through the appropriate carbon adsorption system and the treated water is returned to the springs. Performance samples from the discharge are collected and analyzed periodically for volatile organic compounds. The performance sampling results for Cox Spring and Unnamed Spring No. 1 are shown on Table 1.

### **B. Provision of Potable Water**

The supply of alternate potable water to the affected residents which began in 1988 has continued to date. The two Cox residences has been connected to the Kentucky Turnpike Water District supply

line by the PRPs. The two Klapper residences have cisterns and are provided with potable water periodically via tanker truck at the PRPs expense.

### **C. Temporary Restriction of Groundwater Usage**

The temporary restriction of groundwater usage went into effect in 1988. Site inspections to date have indicated that all residences maintain compliance with the water use restriction. The collection system used at Cox Spring to provide water to the Cox residences was dismantled to construct the remediation collection system so it is not possible for the water from Cox Spring to be used by the Cox families. The Klapper Spring collection system has also been taken out of service. The Unnamed Spring No. 1 was never used as a domestic water source before the water use restriction went into effect and site inspections show that it remains unused currently.

### **D. Confirmatory Sampling**

Confirmatory samples were collected during an investigation conducted by Rust Environment & Infrastructure (REI) in 1992. The confirmatory sampling involved collecting and analyzing surface soil, subsurface soil, surface water, and sediment samples. The following is a summary of the results of the confirmatory sampling.

- Ten surface soil samples were collected and analyzed for PCBs and PAHs. One of the samples had a PCB detection above the detection limit but below the level that would pose an unacceptable human health risk.
- Thirty-two subsurface soil samples were analyzed and found to contain several VOCs, particularly the samples from the emergency removal area. The VOC levels did not appear to pose an unacceptable risk to human health.
- One surface water sample was collected and analyzed from each of the three ponds located near the emergency removal action area. None of the samples was contaminated.
- Nine sediment samples were collected and analyzed from Brushy Fork Creek. The samples exceeded Sediment Screening Values for several analytes. However, USEPA concluded that no sediment cleanup was warranted because the aquatic communities present did not exhibit significant impairment and because removal of sediments would likely cause greater impairment than presently exists.
- Five air samples were collected and analyzed for PCE. There were no detections of PCE in any of the samples.

### **E. Long-Term Monitoring**

Long-term monitoring, which was initiated in 1992, is continuing in accordance with the EPA approved Field Sampling Plan for the site. The plan requires long-term monitoring of five springs and six groundwater monitoring wells. In addition, ecological monitoring and toxicity testing for surface water and sediment are required.

Tables of long-term monitoring results are attached. The volatile organic compound results for the springs can be found in Table 2. PCE results for the Klapper Spring are in Table 3. The volatile organic compound results for the monitoring wells are summarized in Table 4. Tables 5 and 6

summarize the volatile organic compounds and the semivolatile organic compounds for the surface water. Results for the sediment are in Tables 7 and 8. The following provides a summary of the current status of the long-term monitoring program.

### ***Cox Spring***

Cox Spring is currently undergoing remediation because TCE and PCE were found in the water above action levels during the 1992 fourth quarter sampling and the follow-up sampling event of the fourth quarter, 1993. The remediation system was constructed and placed into operation in May 1994. Performance samples have been collected on a monthly basis since the treatment system was installed. Long-term monitoring of the spring will commence after the clean-up levels for the site are attained.

### ***Unnamed Spring No. 1***

Unnamed Spring No. 1 is under remediation due to the detection of PCE in several of the quarterly long-term monitoring events. The pump and treat system for the spring was constructed at the same time as the Cox Spring's system and also went into operation in May 1994. Performance samples have been collected on a monthly basis since the treatment system was installed. Long-term monitoring will begin again after the spring is completely remediated.

### ***Klapper Spring***

Klapper Spring had three sporadic detections of PCE above the action level during the initial two and a half years of quarterly long-term sampling. In order to monitor the spring more closely, a modified monitoring program was designed. The modified monitoring program involved collecting samples on a monthly basis and initiating a remedial measure if five consecutive monthly samples indicated PCE concentration above the action level. The modified program began in April 1995. In the months of November 1996, through March 1997, the monthly samples indicated PCE concentration above action level five times consecutively. Therefore, EPA and the PRPs evaluated several options of mitigating the effect of the elevated PCE concentration on human health and the environment.

As part of the evaluation, site visits were made to review the physical condition of the spring at various seasons of the year. Special sampling events were conducted to determine PCE distribution along the stream. These activities indicated possible natural air stripping of the spring. The rate of flow is low (zero to one gallon of water per minute), the water flows over several waterfalls and drops approximately 100 feet vertically over a short distance. Based on water samples collected at the Klapper Spring source and at distances of 50 feet, 100 feet, and 200 feet down-stream, it was estimated by linear regression analysis that PCE concentration was below the action level within approximately 50 feet of the source. In addition, a decline curve analysis of the sampling data was undertaken to estimate when the average concentration of PCE in Klapper Spring will be lower than the action level due to natural attenuation. Based on this analysis, it is estimated that the average concentration of PCE will decrease to the action level at the end of 1998.

In summary, the special evaluation has indicated that the spring's flow rate and the extent of stream contamination by PCE are limited. The contaminant appears to attenuate naturally and is expected

to be at an acceptable level within a short period of time. In addition, the spring is restricted as a source of potable water and the previous users currently receive water from an alternate supply. Therefore, the current impact of PCE on Klapper Spring does not appear to pose a substantial risk to human health or the environment.

Although, the current condition of the spring does not appear to constitute a substantial threat to human health or the environment, the PRPs have been asked to provide additional precautionary measures aimed at restricting children access to the contaminated portion of the stream. Therefore, a 6 feet high chain-link fence with three strands of barbed wire along the top is planned to be installed in April 1998. The fence will enclose the source of the spring and the stream for a distance of approximately 50 feet along its flow path. Once the fence is constructed, performance sampling will begin. The performance sampling will consist of collecting water samples quarterly at a location inside the fence and at the point where the water discharges from the fenced area. The samples will be analyzed for PCE to monitor progress of natural air stripping.

### ***Brading Spring No. 2***

In accordance with the approved Field Sampling Plan, Brading Spring No. 2 was sampled quarterly for one year from fourth quarter 1992, through the third quarter of 1993. Benzene was detected once in the second quarter of 1994, at a concentration which exceeded the action level. Because of the detection, the long-term sampling program restarted and the one year quarterly monitoring requirement was accomplished from third quarter 1994, through second quarter 1995. Semi-annual monitoring for two years was completed in the first quarter of 1997. Annual sampling is in progress. The spring will be sampled during the third quarter of 1998, if there are no exceedances of the action levels at that time, the long-term monitoring requirements for the spring will end.

### ***Cattle Spring***

Cattle Spring has been sampled according to the long-term monitoring program but has been dry for several of the sampling events. Since dry events do not count as a monitoring event, Cattle Spring is several events behind the other springs. Quarterly sampling was conducted from fourth quarter 1992, through first quarter of 1994, with two dry events. Semi-annual monitoring was conducted from third quarter 1994, through first quarter 1997, with four dry events. Annual sampling was initiated in the third quarter of 1997. The spring will be sampled annually for one more year during third quarter 1998 and, if there are no exceedances of the action levels, the long-term monitoring of Cattle Spring will cease.

### ***Groundwater Monitoring Wells***

Groundwater samples have been collected annually from six dedicated monitoring wells for five years starting from the fourth quarter of 1992 through third quarter, 1997. See Table 4. One monitoring well (well MW-2) has shown detections of volatile organic compounds which exceed the action levels each time it has been sampled. Two others, wells MW-4 and MW-5, showed concentrations of volatile organic compounds exceeding action levels during the sampling event of third quarter, 1997. sampling. These three wells will continue to be monitored until there have been five consecutive sampling events without an exceedance of the action levels. Monitoring wells MW-8, MW-11, and

MW-12 have had no exceedances during the five years which they have been sampled. Therefore, long-term monitoring of these wells are no longer required.

### ***Ecological Monitoring***

The baseline ecological monitoring was conducted in the fourth quarter of 1992. Follow-up monitoring occurred in the third quarter of 1993, and the third quarter of 1997. The monitoring involved collecting and analyzing surface water and sediment samples for VOC, SVOC, and metals. In addition, water samples were collected for toxicity testing involving water spider and flathead minnow survival and reproduction. The fifth year sampling event was conducted in July 1997. The results did not indicate any exceedances of the action levels in the surface water and sediment, or unfavorable surface water toxicity. An evaluation of these results shows that the site does not pose an unacceptable adverse effect on the ecology of Brushy Fork Creek.

### **D. ARAR Review**

A review of current Federal and Kentucky drinking water standards shows that the standards have not changed since the Performance Standards Verification Plan was prepared in September 1993. The discharge from the treatment system or from the springs which are not being treated is required to be below the Maximum Contaminant Levels (MCLs), the non-zero Maximum Contaminant Level Goals (MCLGs) of the Safe Drinking Water Act, and below the Commonwealth of Kentucky NPDES Standards. The performance standards are shown on Table 9. The site operations have complied with all requirements to date.

## **II. SITE CONDITIONS**

### **A. Summary of Site Visit**

As an on-going remedial action, the PRPs maintain a presence at the site and inspect the remediation system on a monthly basis. No major problems that would be detrimental to site operations have been observed. The USEPA project manager visited the site on May 15, 1997, to inspect the treatment system and to discuss the need for remedial action at Klapper Spring. No irregularities were found with the operation of the treatment system during the site visit.

### **B. Areas of Noncompliance**

No areas of noncompliance have been found during this review period. All results from the discharge of the treatment system have been within the performance standards. There have been times when the monthly inspection discovered that the treatment system was not operating. In each case, the cause of the problem was quickly identified and was corrected as soon as possible. The most common reason for temporary remediation interruption has been lightning effect on the system's electrical controls. This is infrequent and generally receives immediate attention.



### **III. RECOMMENDATIONS**

#### **A. Recommendations**

1. Operations of the site are proceeding systematically in accordance with the Remedial Action Work Plan finalized in 1993, and the goals of the OU1 ROD are being met. Therefore, all field activities planned for the site should continue.
2. The chain-link security fence recently proposed for the Klapper Spring should be installed by the PRPs as approved by EPA without further delay.

#### **B. Statement of Protectiveness**

The remedial action currently in place at Cox Spring and Unnamed Spring No. 1 and the proposed remedial action at Klapper Spring, along with the other provisions of the ROD for OU #1, are protective of human health and the environment.

- The remediation systems at Cox Spring and Unnamed Spring No. 1 are cleaning up the water which flows from the springs to acceptable levels, based on the results of the performance monitoring samples.
- The results of the sampling at Klapper Spring show that the water sometimes exceeds the action level for PCE. The security fence to be installed around the spring shortly is expected to provide necessary protectiveness. Performance monitoring will be used to verify that this action meets its objectives.
- The PRPs are continuing to provide potable drinking water to the residences that were previously using impacted spring water. The prohibition of the use of the impacted spring water is still in effect and site inspections show that the impacted springs are not currently being used as potable water sources.
- The results of the confirmatory sampling conducted at the site show that there are still contaminants at the site but not at levels which pose an unacceptable risk to human health or the environment. Based on the results of the confirmatory sampling, USEPA issued a "no further action" ROD for OU#2 in March, 1996.
- The results of the sampling from Brading and Cattle Springs show that the site is not impacting these springs.
- The results of the groundwater sampling program show that the groundwater at the site is not impacted except at monitoring wells MW-02, MW-04, and MW-05 which are all located near the former disposal area. The groundwater in the area of the impacted wells discharges to the springs in the area which serve as the compliance monitoring points. The springs are impacted but the water from the springs is being collected and treated appropriately, thereby mitigating potential threat to human health or the environment.
- Evaluation of the results of the recently completed ecological monitoring show that there is no unacceptable adverse effect on the ecology of Brushy Fork Creek.

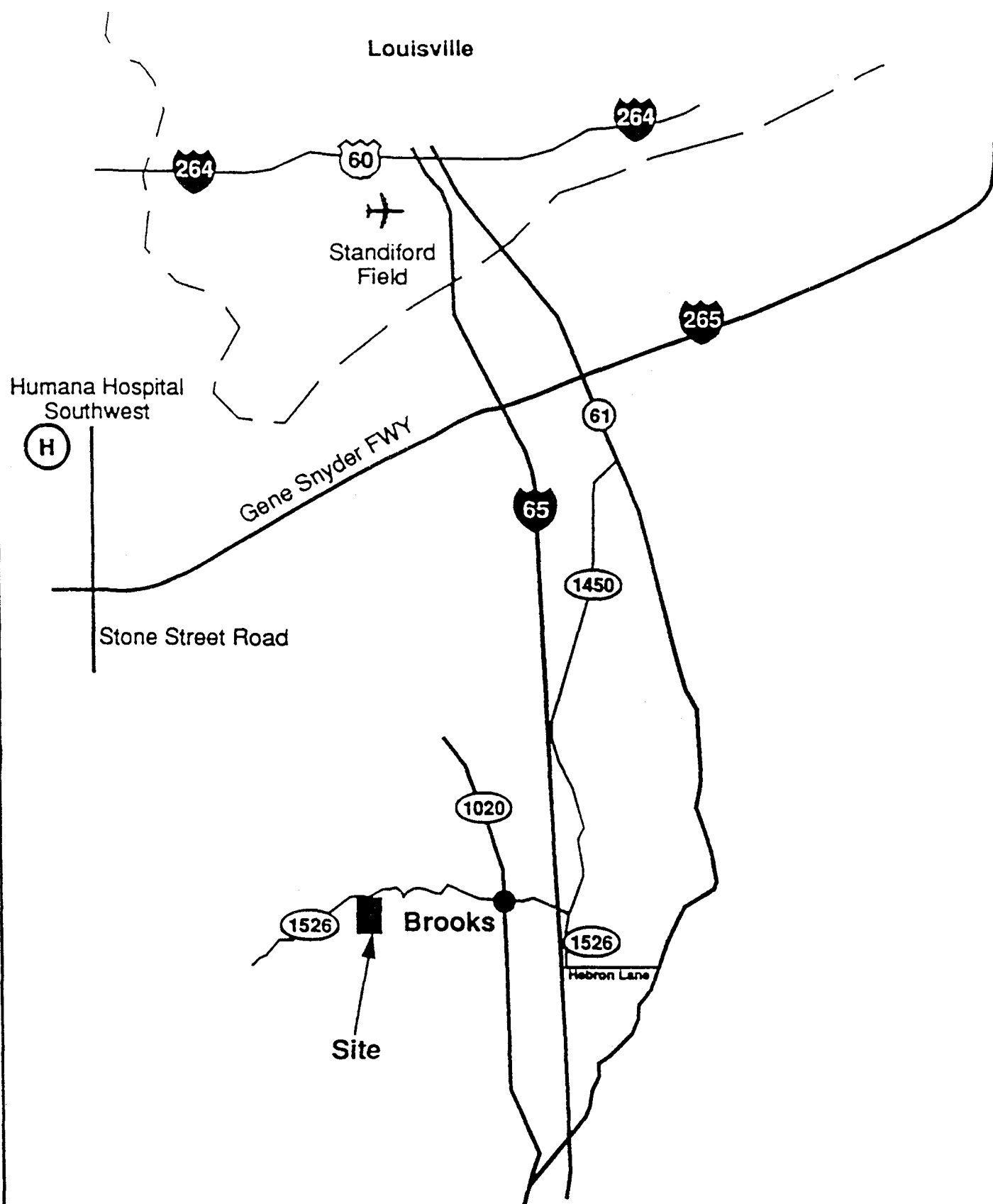
#### **C. On-Going Monitoring Requirements**

Periodic monitoring will continue to be conducted at the site to satisfy the requirements of the Field Sampling Plan and Performance Standards Verification Plan.

- Cattle and Brading Springs will be sampled during third quarter 1998 as required by the Field Sampling Plan. If the results of this sampling event do not exceed the action levels, no further sampling will be required for Cattle and Brading Springs.
- Monitoring wells MW-2, MW-4, and MW-5 will be sampled annually during third quarter 98 as required by the Field Sampling Plan. This sampling is required until the results of five consecutive sampling events do not exceed action levels.
- The treated effluent from the Cox Spring and Unnamed Spring No. 1 discharges will be monitored on a monthly basis as required by the Performance Standards Verification Plan.

**D. Next Review**

The next review will be performed by March 31, 2003.



Not to Scale

**RUST** ENVIRONMENT & INFRASTRUCTURE

**Figure 1**  
**Site Location Map**  
Tri-City Industrial Disposal Site  
Bullitt County, Kentucky

**TABLE 1**  
**SUMMARY OF PERFORMANCE MONITORING RESULTS IN COX SPRING AND UNNAMED SPRING NO. 1**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	May 1994		June 1994		July 1994		Aug. 1994		Sept. 1994		Oct. 1994	
		Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1
Chloroform	$\mu\text{g/L}$	<10	NS	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10
1,1-Dichloroethene	$\mu\text{g/L}$	<10	NS	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10
Cis-1,2-Dichloroethene	$\mu\text{g/L}$	<10	NS	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10
Trans-1,2-Dichloroethene	$\mu\text{g/L}$	<10	NS	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10
Tetrachloroethene	$\mu\text{g/L}$	<10	NS	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10
Toluene	$\mu\text{g/L}$	<10	NS	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10
1,1,1-Trichloroethane	$\mu\text{g/L}$	<10	NS	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10
Trichloroethene	$\mu\text{g/L}$	<10	NS	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10
Vinyl Chloride	$\mu\text{g/L}$	<10	NS	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Xylene	$\mu\text{g/L}$	1 J	NS	<10	<10	<10	<10	<5	<5	<10	<10	<10	<10

NS Not sampled

J Estimated value below the method detection limit

**TABLE 1**  
**SUMMARY OF PERFORMANCE MONITORING RESULTS IN COX SPRING AND UNNAMED SPRING NO. 1**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	Nov. 1994		Dec. 1994		Jan. 1995		Feb. 1995		Mar. 1995		Apr. 1995	
		Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1
Chloroform	$\mu\text{g/L}$	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	$\mu\text{g/L}$	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cis-1,2-Dichloroethene	$\mu\text{g/L}$	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trans-1,2-Dichloroethene	$\mu\text{g/L}$	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Tetrachloroethene	$\mu\text{g/L}$	<10	<10	<10	<10	<10	<10	<10	3.2 J	<10	<10	<10	<10
Toluene	$\mu\text{g/L}$	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,1-Trichloroethane	$\mu\text{g/L}$	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichloroethene	$\mu\text{g/L}$	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl Chloride	$\mu\text{g/L}$	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Xylene	$\mu\text{g/L}$	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

NS Not sampled

J Estimated value below the method detection limit

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**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	May 1995		June 1995		July 1995		Aug. 1995		Sept. 1995		Oct. 1995	
		Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1
Chloroform	μg/L	<10	<10	<1.0	1.5 J	<1.0	<1.0	<1.0	1.2 J	<1.0	<1.0	<1.0	0.34 J
1,1-Dichloroethene	μg/L	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,2-Dichloroethene	μg/L	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	0.12 J	0.55 J	<1.0	<1.0	<1.0
Trans-1,2-Dichloroethene	μg/L	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	μg/L	<10	<10	0.53 J	<1.0	0.98 J	<1.0	<1.0	<1.0	1.2	<1.0	0.82 J	<1.0
Toluene	μg/L	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	μg/L	<10	<10	<1.0	0.35 J	<1.0	<1.0	<1.0	0.25 J	<1.0	<1.0	<1.0	<1.0
Trichloroethene	μg/L	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.23 J	<1.0
Vinyl Chloride	μg/L	<10	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylene	μg/L	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NS Not sampled

J Estimated value below the method detection limit

**TABLE 1**  
**SUMMARY OF PERFORMANCE MONITORING RESULTS IN COX SPRING AND UNNAMED SPRING NO. 1**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	Nov. 1995		Dec. 1995		Jan. 1996		Feb. 1996		Mar. 1996		Apr. 1996	
		Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1
Chloroform	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,2-Dichloroethene	µg/L	<1.0	<1.0	<1.0	<1.0	0.38 J	<1.0	0.66 J	<1.0	0.58 J	<1.0	0.60 J	<1.0
Trans-1,2-Dichloroethene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	µg/L	0.31 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.20 J	<1.0
Toluene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.61 J	0.23 J	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NS Not sampled

J Estimated value below the method detection limit

**TABLE 1**  
**SUMMARY OF PERFORMANCE MONITORING RESULTS IN COX SPRING AND UNNAMED SPRING NO. 1**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	May 1996		June 1996		July 1996		Aug. 1996		Sept. 1996		Oct. 1996	
		Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1
Chloroform	µg/L	<1.0	<1.0	<1.0	<1.0	0.27	<1.0	0.27 J	<1.0	<1.0	NS	0.26 J	NS
1,1-Dichloroethene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<1.0	NS
Cis-1,2-Dichloroethene	µg/L	<1.0	<1.0	1.6	<1.0	2.8	<1.0	3.2	<1.0	3.1	NS	3.9	NS
Trans-1,2-Dichloroethene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<1.0	NS
Tetrachloroethene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.51 J	<1.0	0.47 J	NS	0.46 J	NS
Toluene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<1.0	NS
1,1,1-Trichloroethane	µg/L	<1.0	<1.0	<1.0	<1.0	0.32 J	<1.0	0.28 J	<1.0	0.31 J	NS	0.42 J	NS
Trichloroethene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<1.0	NS
Vinyl Chloride	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NS	<2.0	NS
Xylene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS	<1.0	NS

NS Not sampled

J Estimated value below the method detection limit



**TABLE 1**  
**SUMMARY OF PERFORMANCE MONITORING RESULTS IN COX SPRING AND UNNAMED SPRING NO. 1**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	Nov. 1996		Dec. 1996		Jan. 1997		Feb. 1997		Mar. 1997		Apr. 1997	
		Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1
Chloroform	µg/L	0.26 J	NS	<1.0	<1.0	0.20 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	µg/L	<1.0	NS	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,2-Dichloroethene	µg/L	4.2	NS	2.6	<0.5	3.7	<0.5	0.26 J	<0.5	0.29	<0.5	<0.5	<0.5
Trans-1,2-Dichloroethene	µg/L	<0.5	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.63 J	NS	0.25 J	<1.0	0.23 J	<1.0	0.98 J	<1.0	1.2	<1.0	0.40 J	<1.0
Toluene	µg/L	<1.0	NS	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	µg/L	0.50 J	NS	<1.0	<1.0	0.26 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene	µg/L	<1.0	NS	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	µg/L	<2.0	NS	<2.0	<2.0	0.31 J	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Xylene	µg/L	<1.0	NS	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

NS Not sampled

J Estimated value below the method detection limit

**TABLE 1**  
**SUMMARY OF PERFORMANCE MONITORING RESULTS IN COX SPRING AND UNNAMED SPRING NO. 1**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	May 1997		June 1997		July 1997		Aug. 1997					
		Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1	Cox	UN#1
Chloroform	μg/L	<1.0	<1.0	<1.0	<1.0	<1.0	NS						
1,1-Dichloroethene	μg/L	<1.0	<1.0	<1.0	<1.0	<1.0	NS						
Cis-1,2-Dichloroethene	μg/L	<0.5	<0.5	<0.5	<0.5	0.53	NS						
Trans-1,2-Dichloroethene	μg/L	<0.5	<0.5	<0.5	<0.5	<0.5	NS						
Tetrachloroethene	μg/L	<1.0	<1.0	<1.0	<1.0	<1.0	NS						
Toluene	μg/L	<1.0	<1.0	<1.0	<1.0	<1.0	NS						
1,1,1-Trichloroethane	μg/L	<1.0	<1.0	<1.0	<1.0	<1.0	NS						
Trichloroethene	μg/L	<1.0	<1.0	<1.0	<1.0	<1.0	NS						
Vinyl Chloride	μg/L	<2.0	<2.0	<2.0	<2.0	<2.0	NS						
Xylene	μg/L	<1.0	<1.0	<1.0	<1.0	<1.0	NS						

NS Not sampled

J Estimated value below the method detection limit

**TABLE 2**  
**SUMMARY OF VOC SPRING RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	FOURTH QTR 1992					FIRST QTR 1993				
		Cattle	Brading	Klapper	Cox	Un#1	Cattle	Brading	Klapper	Cox	UN#1
Chloroform	$\mu\text{g/L}$	DRY	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	$\mu\text{g/L}$	DRY	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cis-1,2-Dichloroethene	$\mu\text{g/L}$	DRY	<10	<10	19	<10	<10	<10	<10	<10	1 J
Trans-1,2-Dichloroethene	$\mu\text{g/L}$	DRY	<10	<10	<10	<10	<10	<10	<10	<10	<10
Tetrachloroethene	$\mu\text{g/L}$	DRY	<10	1 J	120	6 J	<10	<10	<10	<10	36
Toluene	$\mu\text{g/L}$	DRY	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,1-Trichloroethane	$\mu\text{g/L}$	DRY	<10	<10	2 J	<10	<10	<10	<10	<10	<10
Trichloroethene	$\mu\text{g/L}$	DRY	<10	<10	15	<10	<10	<10	<10	<10	<10
Vinyl Chloride	$\mu\text{g/L}$	DRY	<10	<10	3 J	<10	<10	<10	<10	<10	<10
Xylene	$\mu\text{g/L}$	DRY	<10	<10	<10	<10	<10	<10	<10	<10	<10

NS Not sampled because sampling was not required in the Long-Term Monitoring Program

DRY Spring was dry at the time of sampling

MS Monthly sampling of Klapper Spring (see Table 3)

PS Performance sampling of Cox Spring and Unnamed Spring No. 1 (see Table 1)

J Estimated value below the method detection limit

**TABLE 2**  
**SUMMARY OF VOC SPRING RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	SECOND QTR 1993					THIRD QTR 1993				
		Cattle	Brading	Klapper	Cox	Un#1	Cattle	Brading	Klapper	Cox	UN#1
Chloroform	µg/L	<10	<10	<10	NS	<10	DRY	<10	DRY	NS	<10
1,1-Dichloroethene	µg/L	<10	<10	<10	NS	<10	DRY	<10	DRY	NS	<10
Cis-1,2-Dichloroethene	µg/L	<10	<10	<10	NS	<10	DRY	<10	DRY	NS	<10
Trans-1,2-Dichloroethene	µg/L	<10	<10	<10	NS	<10	DRY	<10	DRY	NS	<10
Tetrachloroethene	µg/L	<10	<10	13	NS	16	DRY	<10	DRY	NS	8 J
Toluene	µg/L	<10	<10	<10	NS	<10	DRY	<10	DRY	NS	<10
1,1,1-Trichloroethane	µg/L	<10	<10	<10	NS	<10	DRY	<10	DRY	NS	<10
Trichloroethene	µg/L	<10	<10	<10	NS	<10	DRY	<10	DRY	NS	<10
Vinyl Chloride	µg/L	<10	<10	<10	NS	<10	DRY	<10	DRY	NS	<10
Xylene	µg/L	<10	<10	<10	NS	<10	DRY	<10	DRY	NS	<10

NS Not sampled because sampling was not required in the Long-Term Monitoring Program

DRY Spring was dry at the time of sampling

MS Monthly sampling of Klapper Spring (see Table 3)

PS Performance sampling of Cox Spring and Unnamed Spring No. 1 (see Table 1)

J Estimated value below the method detection limit

**TABLE 2**  
**SUMMARY OF VOC SPRING RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	FOURTH QTR 1993					FIRST QTR 1994				
		Cattle	Brading	Klapper	Cox	Un#1	Cattle	Brading	Klapper	Cox	Un#1
Chloroform	µg/L	<10	<10	<10	<10	<10	<10	NS	<10	NS	<10
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<10	<10	NS	<10	NS	<10
Cis-1,2-Dichloroethene	µg/L	<10	<10	<10	20	<10	<10	NS	<10	NS	<10
Trans- 1,2-Dichloroethene	µg/L	<10	<10	<10	<10	<10	<10	NS	<10	NS	<10
Tetrachloroethene	µg/L	<10	<10	<10	200	8 J	2 J	NS	<10	NS	19
Toluene	µg/L	<10	<10	<10	<10	<10	<10	NS	<10	NS	<10
1,1,1-Trichloroethane	µg/L	<10	<10	<10	2 J	<10	<10	NS	<10	NS	<10
Trichloroethene	µg/L	<10	<10	<10	14	<10	<10	NS	<10	NS	<10
Vinyl Chloride	µg/L	<10	<10	<10	2 J	<10	<10	NS	<10	NS	<10
Xylene	µg/L	<10	<10	<10	<10	<10	<10	NS	<10	NS	<10

NS Not sampled because sampling was not required in the Long-Term Monitoring Program

DRY Spring was dry at the time of sampling

MS Monthly sampling of Klapper Spring (see Table 3)

PS Performance sampling of Cox Spring and Unnamed Spring No. 1 (see Table 1)

J Estimated value below the method detection limit

**TABLE 2**  
**SUMMARY OF VOC SPRING RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	SECOND QTR 1994					THIRD QTR 1994				
		Cattle	Brading *	Klapper	Cox	Un#1	Cattle	Brading	Klapper	Cox	Un#1
Chloroform	µg/L	NS	<10	<10	NS	<10	DRY	<5	DRY	PS	PS
1,1-Dichloroethene	µg/L	NS	<10	<10	NS	<10	DRY	<5	DRY	PS	PS
Cis-1,2-Dichloroethene	µg/L	NS	<10	<10	NS	<10	DRY	<5	DRY	PS	PS
Trans- 1,2-Dichloroethene	µg/L	NS	<10	<10	NS	<10	DRY	<5	DRY	PS	PS
Tetrachloroethene	µg/L	NS	<10	11	NS	23	DRY	<5	DRY	PS	PS
Toluene	µg/L	NS	7 J	<10	NS	<10	DRY	<5	DRY	PS	PS
1,1,1-Trichloroethane	µg/L	NS	<10	<10	NS	<10	DRY	<5	DRY	PS	PS
Trichloroethene	µg/L	NS	<10	<10	NS	1 J	DRY	<5	DRY	PS	PS
Vinyl Chloride	µg/L	NS	<10	<10	NS	<10	DRY	<10	DRY	PS	PS
Xylene	µg/L	NS	8 J	<10	NS	<10	DRY	<5	DRY	PS	PS

NS Not sampled because sampling was not required in the Long-Term Monitoring Program

DRY Spring was dry at the time of sampling

MS Monthly sampling of Klapper Spring (see Table 3)

PS Performance sampling of Cox Spring and Unnamed Spring No. 1 (see Table 1)

J Estimated value below the method detection limit

\* Benzene was also detected at a concentration of 11 µg/L which exceeded the MCL

**TABLE 2**  
**SUMMARY OF VOC SPRING RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	FOURTH QTR 1994					FIRST QTR 1995				
		Cattle	Brading	Klapper	Cox	Un#1	Cattle	Brading	Klapper	Cox	Un#1
Chloroform	µg/L	DRY	<10	<10	PS	PS	<10	<10	<10	PS	PS
1,1-Dichloroethene	µg/L	DRY	<10	<10	PS	PS	<10	<10	<10	PS	PS
Cis-1,2-Dichloroethene	µg/L	DRY	<10	<10	PS	PS	<10	<10	<10	PS	PS
Trans- 1,2-Dichloroethene	µg/L	DRY	<10	<10	PS	PS	<10	<10	<10	PS	PS
Tetrachloroethene	µg/L	DRY	<10	4 J	PS	PS	1.2 J	<10	21	PS	PS
Toluene	µg/L	DRY	<10	<10	PS	PS	<10	<10	<10	PS	PS
1,1,1-Trichloroethane	µg/L	DRY	<10	<10	PS	PS	<10	<10	<10	PS	PS
Trichloroethene	µg/L	DRY	<10	<10	PS	PS	<10	<10	<10	PS	PS
Vinyl Chloride	µg/L	DRY	<10	<10	PS	PS	<10	<10	<10	PS	PS
Xylene	µg/L	DRY	<10	<10	PS	PS	<10	<10	<10	PS	PS

NS Not sampled because sampling was not required in the Long-Term Monitoring Program

DRY Spring was dry at the time of sampling

MS Monthly sampling of Klapper Spring (see Table 3)

PS Performance sampling of Cox Spring and Unnamed Spring No. 1 (see Table 1)

J Estimated value below the method detection limit

**TABLE 2**  
**SUMMARY OF VOC SPRING RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	SECOND QTR 1995					THIRD QTR 1995				
		Cattle	Brading	Klapper	Cox	Un#1	Cattle	Brading	Klapper	Cox	Un#1
Chloroform	µg/L	<10	<10	MS	PS	PS	NS	NS	MS	PS	PS
1,1-Dichloroethene	µg/L	<10	<10	MS	PS	PS	NS	NS	MS	PS	PS
Cis-1,2-Dichloroethene	µg/L	<10	<10	MS	PS	PS	NS	NS	MS	PS	PS
Trans- 1,2-Dichloroethene	µg/L	<10	<10	MS	PS	PS	NS	NS	MS	PS	PS
Tetrachloroethene	µg/L	<10	<10	MS	PS	PS	NS	NS	MS	PS	PS
Toluene	µg/L	<10	<10	MS	PS	PS	NS	NS	MS	PS	PS
1,1,1-Trichloroethane	µg/L	<10	<10	MS	PS	PS	NS	NS	MS	PS	PS
Trichloroethene	µg/L	<10	<10	MS	PS	PS	NS	NS	MS	PS	PS
Vinyl Chloride	µg/L	<10	<10	MS	PS	PS	NS	NS	MS	PS	PS
Xylene	µg/L	<10	<10	MS	PS	PS	NS	NS	MS	PS	PS

NS Not sampled because sampling was not required in the Long-Term Monitoring Program

DRY Spring was dry at the time of sampling

MS Monthly sampling of Klapper Spring (see Table 3)

PS Performance sampling of Cox Spring and Unnamed Spring No. 1 (see Table 1)

J Estimated value below the method detection limit



**TABLE 2**  
**SUMMARY OF VOC SPRING RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	FOURTH QTR 1995					FIRST QTR 1996				
		Cattle	Brading	Klapper	Cox	Un#1	Cattle	Brading	Klapper	Cox	Un#1
Chloroform	$\mu\text{g/L}$	DRY	<1	MS	PS	PS	<1	<1	MS	PS	PS
1,1-Dichloroethene	$\mu\text{g/L}$	DRY	<1	MS	PS	PS	<1	<1	MS	PS	PS
Cis-1,2-Dichloroethene	$\mu\text{g/L}$	DRY	<1	MS	PS	PS	<1	<1	MS	PS	PS
Trans- 1,2-Dichloroethene	$\mu\text{g/L}$	DRY	<1	MS	PS	PS	<1	<1	MS	PS	PS
Tetrachloroethene	$\mu\text{g/L}$	DRY	<1	MS	PS	PS	0.82 J	<1	MS	PS	PS
Toluene	$\mu\text{g/L}$	DRY	<1	MS	PS	PS	<1	<1	MS	PS	PS
1,1,1-Trichloroethane	$\mu\text{g/L}$	DRY	<1	MS	PS	PS	<1	<1	MS	PS	PS
Trichloroethene	$\mu\text{g/L}$	DRY	<1	MS	PS	PS	<1	<1	MS	PS	PS
Vinyl Chloride	$\mu\text{g/L}$	DRY	<2	MS	PS	PS	<2	<2	MS	PS	PS
Xylene	$\mu\text{g/L}$	DRY	<1	MS	PS	PS	<1	<1	MS	PS	PS

NS Not sampled because sampling was not required in the Long-Term Monitoring Program

DRY Spring was dry at the time of sampling

MS Monthly sampling of Klapper Spring (see Table 3)

PS Performance sampling of Cox Spring and Unnamed Spring No. 1 (see Table 1)

J Estimated value below the method detection limit

**TABLE 2**  
**SUMMARY OF VOC SPRING RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	SECOND QTR 1996					THIRD QTR 1996				
		Cattle	Brading	Klapper	Cox	Un#1	Cattle	Brading	Klapper	Cox	Un#1
Chloroform	$\mu\text{g/L}$	NS	NS	MS	PS	PS	DRY	<1	MS	0.24	<1
1,1-Dichloroethene	$\mu\text{g/L}$	NS	NS	MS	PS	PS	DRY	<1	MS	<1	<1
Cis-1,2-Dichloroethene	$\mu\text{g/L}$	NS	NS	MS	PS	PS	DRY	<1	MS	16	0.56 J
Trans- 1,2-Dichloroethene	$\mu\text{g/L}$	NS	NS	MS	PS	PS	DRY	<1	MS	<1	<1
Tetrachloroethene	$\mu\text{g/L}$	NS	NS	MS	PS	PS	DRY	<1	MS	140	16
Toluene	$\mu\text{g/L}$	NS	NS	MS	PS	PS	DRY	<1	MS	<1	<1
1,1,1-Trichloroethane	$\mu\text{g/L}$	NS	NS	MS	PS	PS	DRY	<1	MS	1.6	<1
Trichloroethene	$\mu\text{g/L}$	NS	NS	MS	PS	PS	DRY	<1	MS	14	0.86 J
Vinyl Chloride	$\mu\text{g/L}$	NS	NS	MS	PS	PS	DRY	<2	MS	1.1 J	<2
Xylene	$\mu\text{g/L}$	NS	NS	MS	PS	PS	DRY	<1	MS	<1	<1

NS Not sampled because sampling was not required in the Long-Term Monitoring Program

DRY Spring was dry at the time of sampling

MS Monthly sampling of Klapper Spring (see Table 3)

PS Performance sampling of Cox Spring and Unnamed Spring No. 1 (see Table 1)

J Estimated value below the method detection limit

**TABLE 2**  
**SUMMARY OF VOC SPRING RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	FOURTH QTR 1996					FIRST QTR 1997				
		Cattle	Brading	Klapper	Cox	Un#1	Cattle	Brading	Klapper	Cox	Un#1
Chloroform	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS
1,1-Dichloroethene	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS
Cis-1,2-Dichloroethene	µg/L	NS	NS	MS	PS	PS	<0.5	<0.5	MS	PS	PS
Trans-1,2-Dichloroethene	µg/L	NS	NS	MS	PS	PS	<0.5	<0.5	MS	PS	PS
Tetrachloroethene	µg/L	NS	NS	MS	PS	PS	0.24 J	<1	MS	PS	PS
Toluene	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS
1,1,1-Trichloroethane	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS
Trichloroethene	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS
Vinyl Chloride	µg/L	NS	NS	MS	PS	PS	<2	<2	MS	PS	PS
Xylene	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS

NS Not sampled because sampling was not required in the Long-Term Monitoring Program  
 DRY Spring was dry at the time of sampling  
 MS Monthly sampling of Klapper Spring (see Table 3)  
 PS Performance sampling of Cox Spring and Unnamed Spring No. 1 (see Table 1)  
 J Estimated value below the method detection limit

**TABLE 2**  
**SUMMARY OF VOC SPRING RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	SECOND QTR 1997					THIRD QTR 1997				
		Cattle	Brading	Klapper	Cox	Un#1	Cattle	Brading	Klapper	Cox	Un#1
Chloroform	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS
1,1-Dichloroethene	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS
Cis-1,2-Dichloroethene	µg/L	NS	NS	MS	PS	PS	<0.5	<0.5	MS	PS	PS
Trans-1,2-Dichloroethene	µg/L	NS	NS	MS	PS	PS	<0.5	<0.5	MS	PS	PS
Tetrachloroethene	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS
Toluene	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS
1,1,1-Trichloroethane	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS
Trichloroethene	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS
Vinyl Chloride	µg/L	NS	NS	MS	PS	PS	<2	<2	MS	PS	PS
Xylene	µg/L	NS	NS	MS	PS	PS	<1	<1	MS	PS	PS

NS Not sampled because sampling was not required in the Long-Term Monitoring Program  
 DRY Spring was dry at the time of sampling  
 MS Monthly sampling of Klapper Spring (see Table 3)  
 PS Performance sampling of Cox Spring and Unnamed Spring No. 1 (see Table 1)  
 J Estimated value below the method detection limit

**TABLE 3**  
**SUMMARY OF LONG-TERM PCE MONITORING RESULTS**  
**FOR KLAPPER SPRING**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

Sampling Date	Sample Collected?	PCE Concentration (ug/L)	Duplicate PCE Concentration (ug/L)	Detection Limit (ug/L)	MCL (ug/L)	Flow Rate* (gpm)
Nov. 1992	Yes	1 J	NS	10	5	NA
Feb. 1993	Yes	ND	NS	10	5	NA
May 1993	Yes	13	NS	10	5	NA
Aug. 1993	Dry	NA	NS	NA	5	0.0
Dec. 1993	Yes	ND	NS	10	5	NA
Feb. 1994	Yes	ND	NS	10	5	NA
May 1994	Yes	11	NS	10	5	NA
Aug. 1994	Dry	NA	NS	NA	5	0.0
Dec. 1994	Yes	4 J	NS	10	5	NA
Feb. 1995	Yes	21	NS	10	5	NA
April 1995	Yes	36	NS	10	5	0.5
May 1995	Yes	100	NS	10	5	1
June 1995	Yes	7	NS	1	5	0.5
July 1995	Yes	3	NS	1	5	0.5
Aug. 1995	Yes	4	NS	1	5	0.25
Sept. 1995	Yes	ND	NS	1	5	0.5
Oct. 1995	Yes	1	NS	1	5	0.5
Nov. 1995	Yes	1.7	NS	1	5	0.25
Dec. 1995	Dry	NA	NS	NA	5	0.0
Jan. 1996	Yes	37	NS	1	5	NA
Feb. 1996	Yes	56	NS	2.5	5	NA
Mar. 1996	Yes	2.1	NS	1	5	NA
Apr. 1996	Yes	59	NS	1	5	NA
May 1996	Yes	51	NS	1	5	NA
Jun. 1996	Yes	12	NS	1	5	NA
Jul. 1996	Yes	16	8.4	1	5	0.25

Sampling Date	Sample Collected?	PCE Concentration (ug/L)	Duplicate PCE Concentration (ug/L)	Detection Limit (ug/L)	MCL (ug/L)	Flow Rate* (gpm)
Aug. 1996	Yes	0.94 J	1.0	1	5	0.25
Sept. 1996	Yes	0.94 J	0.86 J	1	5	0.25
Oct. 1996	Yes	1.1	1.2	1	5	0.25
Nov. 1996	Yes	20	20	1	5	0.25
Dec. 1996	Yes	51	50	1	5	0.25
Jan. 1997	Yes	36	36	1	5	0.25
Feb. 1997	Yes	7.7	7.8	1	5	1
Mar. 1997	Yes	14	12	1	5	2
Apr. 1997	Yes	1.7	1.7	1	5	1
May 1997	Yes	13	13	1	5	1
June 1997	Yes	8.5	NS	1	5	0.5
July 1997	Yes	1.2	1.1	1	5	0.25

PCE = Tetrachloroethylene  
 J = Estimated concentration  
 ND = Not detected  
 NS = Not sampled  
 NA = Not applicable  
 Dry = Spring was dry; a sample was not collected  
 \* = Estimated flow rate

**TABLE 4**  
**SUMMARY OF MONITORING WELL RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	FOURTH QTR 1992						FIRST QTR 1993					
		MW-2	MW-4	MW-5	MW-8	MW-11	MW-12	MW-2	MW-4	MW-5	MW-8	MW-11	MW-12
Chloroform	µg/L	NS	NS	NS	<10	<10	<10	<10	<10	<10	NS	NS	NS
1,1-Dichloroethene	µg/L	NS	NS	NS	<10	<10	<10	<10	<10	<10	NS	NS	NS
Cis-1,2-Dichloroethene	µg/L	NS	NS	NS	2 J	<10	<10	1 J	<10	<10	NS	NS	NS
Trans-1,2-Dichloroethene	µg/L	NS	NS	NS	<10	<10	<10	<10	<10	<10	NS	NS	NS
Tetrachloroethene	µg/L	NS	NS	NS	<10	<10	<10	64	6 J	<10	NS	NS	NS
Toluene	µg/L	NS	NS	NS	<10	<10	<10	<10	<10	<10	NS	NS	NS
1,1,1-Trichloroethane	µg/L	NS	NS	NS	<10	<10	<10	<10	<10	<10	NS	NS	NS
Trichloroethene	µg/L	NS	NS	NS	<10	<10	<10	<10	1 J	<10	NS	NS	NS
Vinyl Chloride	µg/L	NS	NS	NS	2 J	<10	<10	<10	<10	<10	NS	NS	NS
Xylene	µg/L	NS	NS	NS	<10	<10	<10	<10	<10	<10	NS	NS	NS

NS Not sampled

J Estimated value below the method detection limit

**TABLE 4**  
**SUMMARY OF MONITORING WELL RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	SECOND QTR 1993						THIRD QTR 1993					
		MW-2	MW-4	MW-5	MW-8	MW-11	MW-12	MW-2	MW-4	MW-5	MW-8	MW-11	MW-12
Chloroform	µg/L	<10	<10	NS	NS	NS	NS	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	µg/L	<10	<10	NS	NS	NS	NS	<10	<10	<10	<10	<10	<10
Cis-1,2-Dichloroethene	µg/L	2 J	1 J	NS	NS	NS	NS	2 J	1 J	<10	2 J	<10	<10
Trans-1,2-Dichloroethene	µg/L	<10	<10	NS	NS	NS	NS	<10	<10	<10	<10	<10	<10
Tetrachloroethene	µg/L	61	4 J	NS	NS	NS	NS	130	3 J	<10	<10	<10	<10
Toluene	µg/L	<10	<10	NS	NS	NS	NS	<10	<10	<10	<10	<10	<10
1,1,1-Trichloroethane	µg/L	<10	<10	NS	NS	NS	NS	2 J	<10	<10	<10	<10	<10
Trichloroethene	µg/L	2 J	<10	NS	NS	NS	NS	3 J	<10	<10	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	NS	NS	NS	NS	<10	<10	<10	<10	<10	<10
Xylene	µg/L	<10	<10	NS	NS	NS	NS	<10	<10	<10	<10	<10	<10

NS Not sampled

J Estimated value below the method detection limit



**TABLE 4**  
**SUMMARY OF VOC MONITORING WELL RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	THIRD QTR 1994						THIRD QTR 1995					
		MW-2	MW-4	MW-5	MW-8	MW-11	MW-12	MW-2	MW-4	MW-5	MW-8	MW-11	MW-12
Chloroform	µg/L	<5	<5	<5	<5	<5	<5	<2.5	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<5	<5	<5	<5	<5	<5	<2.5	<1	<1	<1	<1	<1
Cis-1,2-Dichloroethene	µg/L	2.2 J	<5	<5	<5	<5	<5	<2.5	1.0	<1	1.6	<1	<1
Trans-1,2-Dichloroethene	µg/L	<5	<5	<5	<5	<5	<5	<2.5	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	130	<5	<5	<5	<5	<5	110	3.1	<1	<1	<1	<1
Toluene	µg/L	<5	<5	<5	<5	<5	<5	<2.5	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	µg/L	2.4 J	<5	<5	<5	<5	<5	1.5 J	<1	<1	<1	<1	<1
Trichloroethene	µg/L	2.8 J	<5	<5	<5	<5	<5	2.6	0.86 J	<1	<1	<1	<1
Vinyl Chloride	µg/L	<10	<10	<10	<10	<10	<10	<5	<2	<2	<2	<2	<2
Xylene	µg/L	<5	<5	<5	<5	<5	<5	<2.5	<1	<1	<1	<1	<1

NS Not sampled

J Estimated value below the method detection limit

**TABLE 4**  
**SUMMARY OF VOC MONITORING WELL RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	THIRD QTR 1996						THIRD QTR 1997					
		MW-2	MW-4	MW-5	MW-8	MW-11	MW-12	MW-2	MW-4	MW-5	MW-8	MW-11	MW-12
Chloroform	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,2-Dichloroethene	µg/L	1.9	0.75 J	<1	0.89 J	<1	<1	0.66 J	4.9	4.8	<1	<1	<1
Trans-1,2-Dichloroethene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	µg/L	93	2.4	<1	<1	<1	<1	38	14	20	<1	<1	<1
Toluene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	µg/L	2.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	µg/L	1.8	0.54 J	<1	<1	<1	<1	1.2	2.9	4.0	<1	<1	<1
Vinyl Chloride	µg/L	<2	<2	<2	0.86 J	<2	<2	<2	<2	<2	<2	<2	<2
Xylene	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

NS Not sampled

J Estimated value below the method detection limit

**TABLE 5**  
**SUMMARY OF VOC SURFACE WATER RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	FOURTH QTR 1992					THIRD QTR 1993				
		SW-1	SW-2	SW-3	SW-4	SW-5	SW-1	SW-2	SW-3	SW-4	SW-5
Chloroform	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cis-1,2-Dichloroethene	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trans-1,2-Dichloroethene	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Tetrachloroethene	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Toluene	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,1-Trichloroethane	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichloroethene	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Xylene	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

NS Not sampled

J Estimated value below the method detection limit

**TABLE 5**  
**SUMMARY OF VOC SURFACE WATER RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	THIRD QTR 1997									
		SW-1	SW-2	SW-3	SW-4	SW-5					
Chloroform	µg/L	<1	<1	<1	<1	<1					
1,1-Dichloroethene	µg/L	<1	<1	<1	<1	<1					
Cis-1,2-Dichloroethene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5					
Trans-1,2-Dichloroethene	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5					
Tetrachloroethene	µg/L	<1	<1	<1	<1	<1					
Toluene	µg/L	<1	<1	<1	<1	<1					
1,1,1-Trichloroethane	µg/L	<1	<1	<1	<1	<1					
Trichloroethene	µg/L	<1	<1	<1	<1	<1					
Vinyl Chloride	µg/L	<2	<2	<2	<2	<2					
Xylene	µg/L	<1	<1	<1	<1	<1					

NS Not sampled

J Estimated value below the method detection limit

**TABLE 6**  
**SUMMARY OF SVOC SURFACE WATER RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	FOURTH QTR 1992				
		SW-1	SW-2	SW-3	SW-4	SW-5
Acenaphthene	µg/L	<10	<10	<10	<10	<10
Acenaphthylene	µg/L	<10	<10	<10	<10	<10
Anthracene	µg/L	<10	<10	<10	<10	<10
Benzo(a)anthracene	µg/L	<10	<10	<10	<10	<10
Benzo (b) fluoranthene	µg/L	<10	<10	<10	<10	<10
Benzo (k) fluoranthene	µg/L	<10	<10	<10	<10	<10
Benzo (g, h, i) perylene	µg/L	<10	<10	<10	<10	<10
4-Bromophenyl phenyl ether	µg/L	<10	<10	<10	<10	<10
Butyl benzyl phthalate	µg/L	<10	<10	<10	<10	<10
Carbazole	µg/L	<10	<10	<10	<10	<10
4-Chloroaniline	µg/L	<10	<10	<10	<10	<10
bis (2-Chloroethoxy) methane	µg/L	<10	<10	<10	<10	<10
bis (2-Chloroethyl) ether	µg/L	<10	<10	<10	<10	<10
2,2'-oxybis (1-chloropropane)	µg/L	<10	<10	<10	<10	<10
4-Chloro-3-methylphenol	µg/L	<10	<10	<10	<10	<10
2-Chloronaphthalene	µg/L	<10	<10	<10	<10	<10
2-Chlorophenol	µg/L	<10	<10	<10	<10	<10
4-Chlorophenyl phenyl ether	µg/L	<10	<10	<10	<10	<10
Chrysene	µg/L	<10	<10	<10	<10	<10
Dibenz (a, h) anthracene	µg/L	<10	<10	<10	<10	<10
Dibenzofuran	µg/L	<10	<10	<10	<10	<10
Di-n-butyl phthalate	µg/L	<10	<10	<10	<10	<10
1,2-Dichlorobenzene	µg/L	<10	<10	<10	<10	<10
1,3-Dichlorobenzene	µg/L	<10	<10	<10	<10	<10
1,4-Dichlorobenzene	µg/L	<10	<10	<10	<10	<10
3,3-Dichlorobenzidine	µg/L	<10	<10	<10	<10	<10
2,4-Dichlorophenol	µg/L	<10	<10	<10	<10	<10
Diethyl phthalate	µg/L	<10	<10	<10	<10	<10
2,4-Dimethylphenol	µg/L	<10	<10	<10	<10	<10
Dimethyl phthalate	µg/L	<10	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol	µg/L	<25	<25	<25	<25	<25

ANALYTE	Units	FOURTH QTR 1992				
		SW-1	SW-2	SW-3	SW-4	SW-5
2,4-Dinitrophenol	µg/L	<25	<25	<25	<25	<25
2,4-Dinitrotoluene	µg/L	<10	<10	<10	<10	<10
2,6-Dinitrotoluene	µg/L	<10	<10	<10	<10	<10
Di-n-octyl phthalate	µg/L	<10	<10	<10	<10	<10
bus (2-Ethylhexyl) phthalate	µg/L	20 B	<10	<10	10 B	<10
Fluoranthene	µg/L	<10	<10	<10	<10	<10
Fluorene	µg/L	<10	<10	<10	<10	<10
Hexachlorobenzene	µg/L	<10	<10	<10	<10	<10
Hexachlorobutadiene	µg/L	<10	<10	<10	<10	<10
Hexachlorocyclopentadiene	µg/L	<10	<10	<10	<10	<10
Hexachloroethane	µg/L	<10	<10	<10	<10	<10
Indeno ( 1, 2, 3 -cd) pyrene	µg/L	<10	<10	<10	<10	<10
Isophorone	µg/L	<10	<10	<10	<10	<10
2-Methylnaphthalene	µg/L	<10	<10	<10	<10	<10
2-Methylphenol	µg/L	<10	<10	<10	<10	<10
4-Methylphenol	µg/L	<10	<10	<10	<10	<10
Naphthalene	µg/L	<10	<10	<10	<10	<10
2-Nitroaniline	µg/L	<25	<25	<25	<25	<25
3-Nitroaniline	µg/L	<25	<25	<25	<25	<25
4-Nitroaniline	µg/L	<25	<25	<25	<25	<25
Nitrobenzene	µg/L	<10	<10	<10	<10	<10
2-nitrophenol	µg/L	<10	<10	<10	<10	<10
4-Nitrophenol	µg/L	<25	<25	<25	<25	<25
N-Nitrosodiphenylamine	µg/L	<10	<10	<10	<10	<10
N-Nitroso-di-n-propylamine	µg/L	<10	<10	<10	<10	<10
Pentachlorophenol	µg/L	<25	<25	<25	<25	<25
Phenanthrene	µg/L	<10	<10	<10	<10	<10
Phenol	µg/L	<10	<10	<10	<10	<10
Pyrene	µg/L	<10	<10	<10	<10	<10
1, 2, 4-Trichlorobenzene	µg/L	<10	<10	<10	<10	<10
2,4,5-Trichlorophenol	µg/L	<25	<25	<25	<25	<25
2,4,6-Trichlorophenol	µg/L	<10	<10	<10	<10	<10

**TABLE 6**  
**SUMMARY OF SVOC SURFACE WATER RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	THIRD QTR 1993				
		SW-1	SW-2	SW-3	SW-4	SW-5
Acenaphthene	µg/L	<10	<10	<10	<10	<10
Acenaphthylene	µg/L	<10	<10	<10	<10	<10
Anthracene	µg/L	<10	<10	<10	<10	<10
Benzo(a)anthracene	µg/L	<10	<10	<10	<10	<10
Benzo (b) fluoranthene	µg/L	<10	<10	<10	<10	<10
Benzo (k) fluoranthene	µg/L	<10	<10	<10	<10	<10
Benzo (g, h, i) perylene	µg/L	<10	<10	<10	<10	<10
4-Bromophenyl phenyl ether	µg/L	<10	<10	<10	<10	<10
Butyl benzyl phthalate	µg/L	<10	<10	<10	<10	<10
Carbazole	µg/L	<10	<10	<10	<10	<10
4-Chloroaniline	µg/L	<10	<10	<10	<10	<10
bis (2-Chloroethoxy) methane	µg/L	<10	<10	<10	<10	<10
bis (2-Chloroethyl) ether	µg/L	<10	<10	<10	<10	<10
2,2'-oxybis (1-chloropropane)	µg/L	<10	<10	<10	<10	<10
4-Chloro-3-methylphenol	µg/L	<10	<10	<10	<10	<10
2-Chloronaphthalene	µg/L	<10	<10	<10	<10	<10
2-Chlorophenol	µg/L	<10	<10	<10	<10	<10
4-Chlorophenyl phenyl ether	µg/L	<10	<10	<10	<10	<10
Chrysene	µg/L	<10	<10	<10	<10	<10
Dibenz (a, h) anthracene	µg/L	<10	<10	<10	<10	<10
Dibenzofuran	µg/L	<10	<10	<10	<10	<10
Di-n-butyl phthalate	µg/L	<10	<10	<10	<10	<10
1,2-Dichlorobenzene	µg/L	<10	<10	<10	<10	<10
1,3-Dichlorobenzene	µg/L	<10	<10	<10	<10	<10
1,4-Dichlorobenzene	µg/L	<10	<10	<10	<10	<10
3,3'-Dichlorobenzidine	µg/L	<10	<10	<10	<10	<10
2,4-Dichlorophenol	µg/L	<10	<10	<10	<10	<10
Diethyl phthalate	µg/L	<10	<10	<10	<10	<10
2,4-Dimethylphenol	µg/L	<10	<10	<10	<10	<10
Dimethyl phthalate	µg/L	<10	<10	<10	<10	<10
4,6-Dinitro-2-methylphenol	µg/L	<25	<25	<25	<25	<25

ANALYTE	Units	THIRD QTR 1993				
		SW-1	SW-2	SW-3	SW-4	SW-5
2,4-Dinitrophenol	µg/L	<25	<25	<25	<25	<25
2,4-Dinitrotoluene	µg/L	<10	<10	<10	<10	<10
2,6-Dinitrotoluene	µg/L	<10	<10	<10	<10	<10
Di-n-octyl phthalate	µg/L	<10	<10	<10	<10	<10
bus (2-Ethylhexyl) phthalate	µg/L	3 JB	3 JB	5 JB	6 JB	6 JB
Fluoranthene	µg/L	<10	<10	<10	<10	<10
Fluorene	µg/L	<10	<10	<10	<10	<10
Hexachlorobenzene	µg/L	<10	<10	<10	<10	<10
Hexachlorobutadiene	µg/L	<10	<10	<10	<10	<10
Hexachlorocyclopentadiene	µg/L	<10	<10	<10	<10	<10
Hexachloroethane	µg/L	<10	<10	<10	<10	<10
Indeno ( 1, 2, 3-cd) pyrene	µg/L	<10	<10	<10	<10	<10
Isophorone	µg/L	<10	<10	<10	<10	<10
2-Methylnaphthalene	µg/L	<10	<10	<10	<10	<10
2-Methylphenol	µg/L	<10	<10	<10	<10	<10
4-Methylphenol	µg/L	<10	<10	<10	<10	<10
Naphthalene	µg/L	<10	<10	<10	<10	<10
2-Nitroaniline	µg/L	<25	<25	<25	<25	<25
3-Nitroaniline	µg/L	<25	<25	<25	<25	<25
4-Nitroaniline	µg/L	<25	<25	<25	<25	<25
Nitrobenzene	µg/L	<10	<10	<10	<10	<10
2-nitrophenol	µg/L	<10	<10	<10	<10	<10
4-Nitrophenol	µg/L	<25	<25	<25	<25	<25
N-Nitrosodiphenylamine	µg/L	<10	<10	<10	<10	<10
N-Nitroso-di-n-propylamine	µg/L	<10	<10	<10	<10	<10
Pentachlorophenol	µg/L	<25	<25	<25	<25	<25
Phenanthrene	µg/L	<10	<10	<10	<10	<10
Phenol	µg/L	<10	<10	<10	<10	<10
Pyrene	µg/L	<10	<10	<10	<10	<10
1, 2, 4-Trichlorobenzene	µg/L	<10	<10	<10	<10	<10
2,4,5-Trichlorophenol	µg/L	<25	<25	<25	<25	<25
2,4,6-Trichlorophenol	µg/L	<10	<10	<10	<10	<10



**TABLE 6**  
**SUMMARY OF SVOC SURFACE WATER RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	THIRD QTR 1997				
		SW-1	SW-2	SW-3	SW-4	SW-5
Acenaphthene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Acenaphthylene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Anthracene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Benzo(a)anthracene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Benzo (b) fluoranthene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Benzo (k) fluoranthene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Benzo (g, h, i) perylene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
4-Bromophenyl phenyl ether	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Butyl benzyl phthalate	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Carbazole	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
4-Chloroaniline	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
bis (2-Chloroethoxy) methane	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
bis (2-Chloroethyl) ether	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
2,2'-oxybis (1-chloropropane)	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
4-Chloro-3-methylphenol	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
2-Chloronaphthalene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
2-Chlorophenol	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
4-Chlorophenyl phenyl ether	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Chrysene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Dibenz (a, h) anthracene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Dibenzofuran	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Di-n-butyl phthalate	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
1,2-Dichlorobenzene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
1,3-Dichlorobenzene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
1,4-Dichlorobenzene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
3,3'-Dichlorobenzidine	µg/L	<48	<50	<50	<49	<48
2,4-Dechlorophenol	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Diethyl phthalate	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
2,4-Demethylphenol	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Dimethyl phthalate	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
4,6-Dinitro-2-methylphenol	µg/L	<48	<50	<50	<49	<48

ANALYTE	Units	THIRD QTR 1997				
		SW-1	SW-2	SW-3	SW-4	SW-5
2,4-Dinitrophenol	µg/L	<48	<50	<50	<49	<48
2,4-Dinitrotoluene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
2,6-Dinitrotoluene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Di-n-octyl phthalate	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
bus (2-Ethylhexyl) phthalate	µg/L	5.4 JB	1.2 JB	90 JB	51 B	<9.6
Fluoranthene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Fluorene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Hexachlorobenzene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Hexachlorobutadiene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Hexachlorocyclopentadiene	µg/L	<48	<50	<50	<49	<48
Hexachloroethane	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Indeno (1, 2, 3-cd) pyrene	µg/L	<9.6	<99	<9.9	<9.7	<9.6
Isophorone	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
2-Methylnaphthalene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
2-Methylphenol	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
4-Methylphenol	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Naphthalene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
2-Nitroaniline	µg/L	<48	<50	<50	<49	<48
3-Nitroaniline	µg/L	<48	<50	<50	<49	<48
4-Nitroaniline	µg/L	<48	<50	<50	<49	<48
Nitrobenzene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
2-nitrophenol	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
4-Nitrophenol	µg/L	<48	<50	<50	<49	<48
N-Nitrosodiphenylamine	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
N-Nitroso-di-n-propylamine	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Pentachlorophenol	µg/L	<48	<50	<9.9	<9.7	<9.6
Phenanthrene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Phenol	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
Pyrene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
1, 2, 4-Trichlorobenzene	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
2,4,5-Trichlorophenol	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6
2,4,6-Trichlorophenol	µg/L	<9.6	<9.9	<9.9	<9.7	<9.6

ANALYTE	Units	THIRD QTR 1997				
		SD-1	SD-2	SD-3	SD-4	SD-5
2,4-Dinitrophenol	µg/Kg	<2700	<2200	<2900	<2100	<2400
2,4-Dinitrotoluene	µg/Kg	<560	<460	<610	<440	<490
2,6-Dinitrotoluene	µg/Kg	<560	<460	<610	<440	<490
Di-n-octyl phthalate	µg/Kg	<560	<460	<610	<440	<490
bus (2-Ethylhexyl) phthalate	µg/Kg	<560	260	<610	<440	<490
Fluoranthene	µg/Kg	<560	<460	<610	<440	<490
Fluorene	µg/Kg	<560	<460	<610	<440	<490
Hexachlorobenzene	µg/Kg	<560	<460	<610	<440	<490
Hexachlorobutadiene	µg/Kg	<560	<460	<610	<440	<490
Hexachlorocyclopentadiene	µg/Kg	<2700	<2200	<2900	<2100	<2400
Hexachloroethane	µg/Kg	<560	<480	<610	<440	<490
Indeno (1, 2, 3-cd) pyrene	µg/Kg	<560	<460	<610	<440	<490
Isophorone	µg/Kg	<560	<460	<610	<440	<490
2-Methylnaphthalene	µg/Kg	<560	<460	<610	<440	<490
2-Methylphenol	µg/Kg	<560	<460	<610	<440	<490
4-Methylphenol	µg/Kg	<560	<460	240	<440	<490
Naphthalene	µg/Kg	<560	<460	<610	<440	<490
2-Nitroaniline	µg/Kg	<2700	<2200	<2900	<2100	<2400
3-Nitroaniline	µg/Kg	<2700	<2200	<2900	<2100	<2400
4-Nitroaniline	µg/Kg	<2700	<2200	<2900	<2100	<2400
Nitrobenzene	µg/Kg	<560	<460	<610	<440	<490
2-nitrophenol	µg/Kg	<560	<460	<610	<440	<490
4-Nitrophenol	µg/Kg	<2700	<2200	<2900	<2100	<2400
N-Nitrosodiphenylamine	µg/Kg	<560	<460	<610	<440	<490
N-Nitroso-di-n-propylamine	µg/Kg	<560	<460	<610	<440	<490
Pentachlorophenol	µg/Kg	<2700	<2200	<2900	<2100	<2400
Phenanthrene	µg/Kg	<560	<460	<610	<440	<490
Phenol	µg/Kg	<560	<460	<610	<440	<490
Pyrene	µg/Kg	<560	<460	<610	<440	<490
1, 2, 4-Trichlorobenzene	µg/Kg	<560	<460	<610	<440	<490
2,4,5-Trichlorophenol	µg/Kg	<560	<460	<610	<440	<490
2,4,6-Trichlorophenol	µg/Kg	<560	<460	<610	<440	<490

ANALYTE	Units	THIRD QTR 1997				
		SD-1	SD-2	SD-3	SD-4	SD-5
2,4-Dinitrophenol	µg/Kg	<2700	<2200	<2900	<2100	<2400
2,4-Dinitrotoluene	µg/Kg	<560	<460	<610	<440	<490
2,6-Dinitrotoluene	µg/Kg	<560	<460	<610	<440	<490
Di-n-octyl phthalate	µg/Kg	<560	<460	<610	<440	<490
bus (2-Ethylhexyl) phthalate	µg/Kg	<560	<460	<610	<440	<490
Fluoranthene	µg/Kg	<560	<460	<610	<440	<490
Fluorene	µg/Kg	<560	<460	<610	<440	<490
Hexachlorobenzene	µg/Kg	<560	<460	<610	<440	<490
Hexachlorobutadiene	µg/Kg	<560	<460	<610	<440	<490
Hexachlorocyclopentadiene	µg/Kg	<2700	<2200	<2900	<2100	<2400
Hexachloroethane	µg/Kg	<560	<480	<610	<440	<490
Indeno (1, 2, 3-cd) pyrene	µg/Kg	<560	<460	<610	<440	<490
Isophorone	µg/Kg	<560	<460	<610	<440	<490
2-Methylnaphthalene	µg/Kg	<560	<460	<610	<440	<490
2-Methylphenol	µg/Kg	<560	<460	<610	<440	<490
4-Methylphenol	µg/Kg	<560	<460	240	<440	<490
Naphthalene	µg/Kg	<560	<460	<610	<440	<490
2-Nitroaniline	µg/Kg	<2700	<2200	<2900	<2100	<2400
3-Nitroaniline	µg/Kg	<2700	<2200	<2900	<2100	<2400
4-Nitroaniline	µg/Kg	<2700	<2200	<2900	<2100	<2400
Nitrobenzene	µg/Kg	<560	<460	<610	<440	<490
2-nitrophenol	µg/Kg	<560	<460	<610	<440	<490
4-Nitrophenol	µg/Kg	<2700	<2200	<2900	<2100	<2400
N-Nitrosodiphenylamine	µg/Kg	<560	<460	<610	<440	<490
N-Nitroso-di-n-propylamine	µg/Kg	<560	<460	<610	<440	<490
Pentachlorophenol	µg/Kg	<2700	<2200	<2900	<2100	<2400
Phenanthrene	µg/Kg	<560	<460	<610	<440	<490
Phenol	µg/Kg	<560	<460	<610	<440	<490
Pyrene	µg/Kg	<560	<460	<610	<440	<490
1, 2, 4-Trichlorobenzene	µg/Kg	<560	<460	<610	<440	<490
2,4,5-Trichlorophenol	µg/Kg	<560	<460	<610	<440	<490
2,4,6-Trichlorophenol	µg/Kg	<560	<460	<610	<440	<490

**TABLE 7**  
**SUMMARY OF VOC SEDIMENT RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	FOURTH QTR 1992					THIRD QTR 1993				
		SD-1	SD-2	SD-3	SD-4	SD-5	SD-1	SD-2	SD-3	SD-4	SD-5
Chloroform	µg/Kg	<14	<15	<15	<14	<12	<16	<15	<23	<14	<14
1,1-Dichloroethene	µg/Kg	<14	<15	<15	<14	<12	<16	<15	<23	<14	<14
Cis-1,2-Dichloroethene	µg/Kg	<14	<15	<15	<14	<12	<16	<15	<23	<14	<14
Trans-1,2-Dichloroethene	µg/Kg	<14	<15	<15	<14	<12	<16	<15	<23	<14	<14
Tetrachloroethene	µg/Kg	<14	<15	<15	<14	<12	<16	<15	<23	<14	<14
Toluene	µg/Kg	<14	<15	<15	<14	<12	<16	<15	<23	<14	<14
1,1,1-Trichloroethane	µg/Kg	<14	<15	<15	<14	<12	<16	<15	<23	<14	<14
Trichloroethene	µg/Kg	<14	<15	<15	<14	<12	<16	<15	<23	<14	<14
Vinyl Chloride	µg/Kg	<14	<15	<15	<14	<12	<16	<15	<23	<14	<14
Xylene	µg/Kg	<14	<15	<15	<14	<12	<16	<15	<23	<14	<14

NS Not sampled

J Estimated value below the method detection limit

**TABLE 7**  
**SUMMARY OF VOC SEDIMENT RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	THIRD QTR 1997									
		SD-1	SD-2	SD-3	SD-4	SD-5					
Chloroform	µg/Kg	<8.6	<6.9	<9.2	<6.7	<7.4					
1,1-Dichloroethene	µg/Kg	<8.6	<6.9	<9.2	<6.7	<7.4					
Cis-1,2-Dichloroethene	µg/Kg	<4.3	<3.5	<4.6	<3.3	<3.7					
Trans-1,2-Dichloroethene	µg/Kg	<4.3	<3.5	<4.6	<3.3	<3.7					
Tetrachloroethene	µg/Kg	<8.6	<6.9	<9.2	<6.7	<7.4					
Toluene	µg/Kg	<8.6	<6.9	<9.2	<6.7	<7.4					
1,1,1-Trichloroethane	µg/Kg	<8.6	<6.9	<9.2	<6.7	<7.4					
Trichloroethene	µg/Kg	<8.6	<6.9	<9.2	<6.7	<7.4					
Vinyl Chloride	µg/Kg	<17	<14	<18	<13	<15					
Xylene	µg/Kg	<8.6	<6.9	<9.2	<6.7	<7.4					

NS Not sampled

J Estimated value below the method detection limit

**TABLE 8**  
**SUMMARY OF SVOC SEDIMENTS WATER RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	FOURTH QTR 1992				
		SD-1	SD-2	SD-3	SD-4	SD-5
Acenaphthene	µg/Kg	<440	<450	<470	<460	<430
Acenaphthylene	µg/Kg	<440	<450	<470	<460	<430
Anthracene	µg/Kg	<440	<450	<470	<460	<430
Benzo(a)anthracene	µg/Kg	<440	<450	<470	<460	<430
Benzo (b) fluoranthene	µg/Kg	<440	<450	<470	<460	<430
Benzo (k) fluoranthene	µg/Kg	<440	<450	<470	<460	<430
Benzo (g, h, i) perylene	µg/Kg	<440	<450	<470	<460	<430
4-Bromophenyl phenyl ether	µg/Kg	<440	<450	<470	<460	<430
Butyl benzyl phthalate	µg/Kg	<440	<450	<470	<460	<430
Carbazole	µg/Kg	<440	<450	<470	<460	<430
4-Chloroaniline	µg/Kg	<440	<450	<470	<460	<430
bis (2-Chloroethoxy) methane	µg/Kg	<440	<450	<470	<460	<430
bis (2-Chloroethyl) ether	µg/Kg	<440	<450	<470	<460	<430
2,2'-oxybis (1-chloropropane)	µg/Kg	<440	<450	<470	<460	<430
4-Chloro-3-methylphenol	µg/Kg	<440	<450	<470	<460	<430
2-Chloronaphthalene	µg/Kg	<440	<450	<470	<460	<430
2-Chlorophenol	µg/Kg	<440	<450	<470	<460	<430
4-Chlorophenyl phenyl ether	µg/Kg	<440	<450	<470	<460	<430
Chrysene	µg/Kg	<440	<450	<470	<460	<430
Dibenz (a, h) anthracene	µg/Kg	<440	<450	<470	<460	<430
Dibenzofuran	µg/Kg	<440	<450	<470	<460	<430
Di-n-butyl phthalate	µg/Kg	<440	<450	<470	<460	<430
1,2-Dichlorobenzene	µg/Kg	<440	<450	<470	<460	<430
1,3-Dichlorobenzene	µg/Kg	<440	<450	<470	<460	<430
1,4-Dichlorobenzene	µg/Kg	<440	<450	<470	<460	<430
3,3-Dichlorobenzidine	µg/Kg	<1100	<1100	<1200	<1100	<1000
2,4-Dichlorophenol	µg/Kg	<440	<450	<470	<460	<430
Diethyl phthalate	µg/Kg	<440	<450	<470	<460	<430
2,4-Dimethylphenol	µg/Kg	<440	<450	<470	<460	<430
Dimethyl phthalate	µg/Kg	<440	<450	<470	<460	<430
4,6-Dinitro-2-methylphenol	µg/Kg	<1100	<1100	<1200	<1100	<1000

ANALYTE	Units	FOURTH QTR 1992				
		SD-1	SD-2	SD-3	SD-4	SD-5
2,4-Dinitrophenol	µg/Kg	<1100	<1100	<1200	<1100	<1000
2,4-Dinitrotoluene	µg/Kg	<440	<450	<470	<460	<430
2,6-Dinitrotoluene	µg/Kg	<440	<450	<470	<460	<430
Di-n-octyl phthalate	µg/Kg	<440	<450	<470	<460	<430
bus (2-Ethylhexyl) phthalate	µg/Kg	<440	<450	<470	<460	<430
Fluoranthene	µg/Kg	<440	<450	<470	<460	<430
Fluorene	µg/Kg	<440	<450	<470	<460	<430
Hexachlorobenzene	µg/Kg	<440	<450	<470	<460	<430
Hexachlorobutadiene	µg/Kg	<440	<450	<470	<460	<430
Hexachlorocyclopentadiene	µg/Kg	<1100	<1100	<1200	<1100	<1000
Hexachloroethane	µg/Kg	<440	<450	<470	<480	<430
Indeno (1, 2, 3-cd) pyrene	µg/Kg	<440	<450	<470	<460	<430
Isophorone	µg/Kg	<440	<450	<470	<460	<430
2-Methylnaphthalene	µg/Kg	<440	<450	<470	<460	<430
2-Methylphenol	µg/Kg	<440	<450	<470	<460	<430
4-Methylphenol	µg/Kg	<440	<450	<470	<460	<430
Naphthalene	µg/Kg	<440	<450	<470	<460	<430
2-Nitroaniline	µg/Kg	<1100	<1100	<1200	<1100	<1000
3-Nitroaniline	µg/Kg	<1100	<1100	<1200	<1100	<1000
4-Nitroaniline	µg/Kg	<1100	<1100	<1200	<1100	<1000
Nitrobenzene	µg/Kg	<440	<450	<470	<460	<430
2-nitrophenol	µg/Kg	<440	<450	<470	<460	<430
4-Nitrophenol	µg/Kg	<1100	<1100	<1200	<1100	<1000
N-Nitrosodiphenylamine	µg/Kg	<440	<450	<470	<460	<430
N-Nitroso-di-n-propylamine	µg/Kg	<440	<450	<470	<460	<430
Pentachlorophenol	µg/Kg	<1100	<1100	<1200	<1100	<1000
Phenanthrene	µg/Kg	<440	<450	<470	<460	<430
Phenol	µg/Kg	<440	<450	<470	<460	<430
Pyrene	µg/Kg	<440	<450	<470	<460	<430
1, 2, 4-Trichlorobenzene	µg/Kg	<440	<450	<470	<460	<430
2,4,5-Trichlorophenol	µg/Kg	<440	<450	<470	<460	<430
2,4,6-Trichlorophenol	µg/Kg	<440	<450	<470	<460	<430



**TABLE 8**  
**SUMMARY OF SVOC SEDIMENT WATER RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	THIRD QTR 1993				
		SD-1	SD-2	SD-3	SD-4	SD-5
Acenaphthene	µg/Kg	<450	<430	<540	<440	<440
Acenaphthylene	µg/Kg	<450	<430	<540	<440	<440
Anthracene	µg/Kg	<450	<430	<540	<440	<440
Benzo(a)anthracene	µg/Kg	<450	<430	<540	<440	<440
Benzo (b) fluoranthene	µg/Kg	<450	<430	<540	<440	<440
Benzo (k) fluoranthene	µg/Kg	<450	<430	<540	<440	<440
Benzo (g, h, i) perylene	µg/Kg	<450	<430	<540	<440	<440
4-Bromophenyl phenyl ether	µg/Kg	<450	<430	<540	<440	<440
Butyl benzyl phthalate	µg/Kg	<450	<430	<540	<440	<440
Carbazole	µg/Kg	<450	<430	<540	<440	<440
4-Chloroaniline	µg/Kg	<450	<430	<540	<440	<440
bis (2-Chloroethoxy) methane	µg/Kg	<450	<430	<540	<440	<440
bis (2-Chloroethyl) ether	µg/Kg	<450	<430	<540	<440	<440
2,2'-oxybis (1-chloropropane)	µg/Kg	<450	<430	<540	<440	<440
4-Chloro-3-methylphenol	µg/Kg	<450	<430	<540	<440	<440
2-Chloronaphthalene	µg/Kg	<450	<430	<540	<440	<440
2-Chlorophenol	µg/Kg	<450	<430	<540	<440	<440
4-Chlorophenyl phenyl ether	µg/Kg	<450	<430	<540	<440	<440
Chrysene	µg/Kg	<450	<430	<540	<440	<440
Dibenz (a, h) anthracene	µg/Kg	<450	<430	<540	<440	<440
Dibenzofuran	µg/Kg	<450	<430	<540	<440	<440
Di-n-butyl phthalate	µg/Kg	<450	<430	<540	<440	<440
1,2-Dichlorobenzene	µg/Kg	<450	<430	<540	<440	<440
1,3-Dichlorobenzene	µg/Kg	<450	<430	<540	<440	<440
1,4-Dichlorobenzene	µg/Kg	<450	<430	<540	<440	<440
3,3'-Dichlorobenzidine	µg/Kg	<1100	<1000	<1300	<1100	<1100
2,4-Dichlorophenol	µg/Kg	<450	<430	<540	<440	<440
Diethyl phthalate	µg/Kg	<450	<430	<540	<440	<440
2,4-Dimethylphenol	µg/Kg	<450	<430	<540	<440	<440
Dimethyl phthalate	µg/Kg	<450	<430	<540	<440	<440
4,6-Dinitro-2-methylphenol	µg/Kg	<1100	<1000	<1300	<1100	<1100

ANALYTE	Units	THIRD QTR 1993				
		SD-1	SD-2	SD-3	SD-4	SD-5
2,4-Dinitrophenol	µg/Kg	<1100	<1000	<1300	<1100	<1100
2,4-Dinitrotoluene	µg/Kg	<450	<430	<540	<440	<440
2,6-Dinitrotoluene	µg/Kg	<450	<430	<540	<440	<440
Di-n-octyl phthalate	µg/Kg	<450	<430	<540	<440	<440
bus (2-Ethylhexyl) phthalate	µg/Kg	<450	<430	<540	<440	<440
Fluoranthene	µg/Kg	<450	<430	<540	<440	<440
Fluorene	µg/Kg	<450	<430	<540	<440	<440
Hexachlorobenzene	µg/Kg	<450	<430	<540	<440	<440
Hexachlorobutadiene	µg/Kg	<450	<430	<540	<440	<440
Hexachlorocyclopentadiene	µg/Kg	<1100	<1000	<1300	<1100	<1100
Hexachloroethane	µg/Kg	<450	<430	<540	<440	<440
Indeno (1, 2, 3-cd) pyrene	µg/Kg	<450	<430	<540	<440	<440
Isophorone	µg/Kg	<450	<430	<540	<440	<440
2-Methylnaphthalene	µg/Kg	<450	<430	<540	<440	<440
2-Methylphenol	µg/Kg	<450	<430	<540	<440	<440
4-Methylphenol	µg/Kg	<450	<430	<540	<440	<440
Naphthalene	µg/Kg	<450	<430	<540	<440	<440
2-Nitroaniline	µg/Kg	<1100	<1000	<1300	<1100	<1100
3-Nitroaniline	µg/Kg	<1100	<1000	<1300	<1100	<1100
4-Nitroaniline	µg/Kg	<1100	<1000	<1300	<1100	<1100
Nitrobenzene	µg/Kg	<450	<430	<540	<440	<440
2-nitrophenol	µg/Kg	<450	<430	<540	<440	<440
4-Nitrophenol	µg/Kg	<1100	<1000	<1300	<1140	<1100
N-Nitrosodiphenylamine	µg/Kg	<450	<430	<540	<440	<440
N-Nitroso-di-n-propylamine	µg/Kg	<450	<430	<540	<440	<440
Pentachlorophenol	µg/Kg	<1100	<1000	<1300	<1100	<1100
Phenanthrene	µg/Kg	<450	<430	<540	<440	<440
Phenol	µg/Kg	<450	<430	<540	<440	<440
Pyrene	µg/Kg	<450	<430	<540	<440	<440
1, 2, 4-Trichlorobenzene	µg/Kg	<450	<430	<540	<440	<440
2,4,5-Trichlorophenol	µg/Kg	<450	<430	<540	<440	<440
2,4,6-Trichlorophenol	µg/Kg	<450	<430	<540	<440	<440

**TABLE 8**  
**SUMMARY OF SVOC SEDIMENT WATER RESULTS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

ANALYTE	Units	THIRD QTR 1997				
		SD-1	SD-2	SD-3	SD-4	SD-5
Acenaphthene	µg/Kg	<560	<460	<610	<440	<490
Acenaphthylene	µg/Kg	<560	<460	<610	<440	<490
Anthracene	µg/Kg	<560	<460	<610	<440	<490
Benzo(a)anthracene	µg/Kg	<560	<460	<610	<440	<490
Benzo (b) fluoranthene	µg/Kg	<560	<460	<610	<440	<490
Benzo (k) fluoranthene	µg/Kg	<560	<460	<610	<440	<490
Benzo (g, h, i) perylene	µg/Kg	<560	<460	<610	<440	<490
4-Bromophenyl phenyl ether	µg/Kg	<560	<460	<610	<440	<490
Butyl benzyl phthalate	µg/Kg	<560	<460	<610	<440	<490
Carbazole	µg/Kg	<560	<460	<610	<440	<490
4-Chloroaniline	µg/Kg	<560	<460	<610	<440	<490
bis (2-Chloroethoxy) methane	µg/Kg	<560	<460	<610	<440	<490
bis (2-Chloroethyl) ether	µg/Kg	<560	<460	<610	<440	<490
2,2'-oxybis (1-chloropropane)	µg/Kg	<560	<460	<610	<440	<490
4-Chloro-3-methylphenol	µg/Kg	<560	<460	<610	<440	<490
2-Chloronaphthalene	µg/Kg	<560	<460	<610	<440	<490
2-Chlorophenol	µg/Kg	<560	<460	<610	<440	<490
4-Chlorophenyl phenyl ether	µg/Kg	<560	<460	<610	<440	<490
Chrysene	µg/Kg	<560	<460	<610	<440	<490
Dibenz (a, h) anthracene	µg/Kg	<560	<460	<610	<440	<490
Dibenzofuran	µg/Kg	<560	<460	<610	<440	<490
Di-n-butyl phthalate	µg/Kg	<560	<460	<610	<440	<490
1,2-Dichlorobenzene	µg/Kg	<560	<460	<610	<440	<490
1,3-Dichlorobenzene	µg/Kg	<560	<460	<610	<440	<490
1,4-Dichlorobenzene	µg/Kg	<560	<460	<610	<440	<490
3,3-Dichlorobenzidine	µg/Kg	<2700	<2200	<2900	<2100	<2400
2,4-Dechlorophenol	µg/Kg	<560	<460	<610	<440	<490
Diethyl phthalate	µg/Kg	<560	<460	<610	<440	<490
2,4-Demethylphenol	µg/Kg	<560	<460	<610	<440	<490
Dimethyl phthalate	µg/Kg	<560	<460	<610	<440	<490
4,6-Dinitro-2-methylphenol	µg/Kg	<2700	<2200	<2900	<2100	<2400

**TABLE 9**  
**PERFORMANCE STANDARDS**  
**TRI-CITY INDUSTRIAL DISPOSAL**  
**BROOKS, BULLITT COUNTY, KENTUCKY**

CONSTITUENT	MCL (µg/L)	NPDES (µg/L)
Chloroform	100	15.7
1,1-Dichloroethene	7	1.85
cis-1,2-Dichloroethene	70	1.85
trans-1,2-Dichloroethene	100	1.85
Tetrachloroethene	5	8.85
Toluene	1,000	424,000
1,1,1-Trichloroethane	200	1,030,000
Trichloroethene	5	80.7
Vinyl Chloride	2	525
Xylenes	10,000	no criteria